

# BWC Strategy Session

## Best Workplaces for Commuters SIP and Conformity Guidance and the COMMUTER Model

On May 10, 2006, the BWC Network held a strategy session to provide Network members with background information on the State Implementation Plan (SIP) and conformity guidance and train Network members to use the U.S. Environmental Protection Agency's COMMUTER model. Mary Walsh and Erik Herzog, Best Workplaces for Commuters team members, facilitated the conversation and presented the COMMUTER model.

### Mary Walsh, U.S. EPA

Ms. Walsh provided background information on SIP and conformity guidance and the COMMUTER model. The COMMUTER model makes it easy to quantify commuter benefits for programs like Best Workplaces for Commuters. The model was designed specifically to evaluate the impact of commuter benefit programs and is user friendly. It measures and quantifies the effects of commuter benefit programs and provides employers with an additional way to promote their achievements. Under appropriate circumstances, the emissions reductions from voluntary commuter benefit programs like Best Workplaces for Commuters can be used for credit in State Implementation Plans (SIPs) or transportation conformity determinations.

Ms. Walsh also provided an overview of the SIP conformity process. The process starts with an inter-agency consultation involving EPA, Federal Highway Administration, Federal Transit Administration, and state and local transportation and air quality agencies to determine what data will be used and how emissions will be modeled. The user collects data on commuting incentives, including the type and

amount of commuting incentives, the number of employees, and other local data. Vehicle miles traveled and total emissions are determined using these data. The SIP is then opened for public comment. SIPs are submitted to EPA, and conformity determination documents are submitted to the U.S. Department of Transportation.

The COMMUTER model can be used to publicize Best Workplaces for Commuters and other commuter benefits programs by providing quantitative measures of their alternative commuting efforts. However, the model is not an appropriate tool for modeling the effect of infrastructure changes like HOV lanes or light rail, or for programs of a large enough scale to have a quantifiable impact on regional travel patterns (in this case the regional travel demand model would have to be re-run to capture the effect of the program), or for programs where important data, such as baseline data, or the number of employees, are unknown.

For the guidance, the COMMUTER model, user manuals, and other supporting documents, Ms. Walsh directed participants to the EPA Web site at: [www.epa.gov/otaq/stateresources/policy/pag\\_transp.htm#cp](http://www.epa.gov/otaq/stateresources/policy/pag_transp.htm#cp).

For questions on the guidance, contact Ms. Walsh at [walsh.mary@epa.gov](mailto:walsh.mary@epa.gov). For questions relating to the COMMUTER model, email Erik Herzog at [Herzog.erik@epa.gov](mailto:Herzog.erik@epa.gov). For questions related to transportation conformity, contact Meg Patulski at [patulski.meg@epa.gov](mailto:patulski.meg@epa.gov).



## Erik Herzog, U.S. EPA

Mr. Herzog walked the participants through the COMMUTER model. The spreadsheet format of the model gives users the ability to calculate reductions in trips, VMT, and emissions based on the incentives offered and the number of employees affected. Participants reviewed an example scenario based on the University of Michigan–Ann Arbor. Mr. Herzog explained how to use the information screen, change inputs, and edit coefficients.

Mr. Herzog explained that the COMMUTER model illustrates the impact of “hard” incentives, i.e., those that affect the time or cost of traveling by a particular mode, and “soft” incentives, such as generally encouraging the use of alternative transportation, raising awareness, and other incentives that do not have a specific dollar value. The model allows users to rank and quantify these soft incentives. Mr. Herzog also guided the participants through the input of local data, which includes the calendar year, seasonal information, and climate type.

Results from the model are attributable to the commuter benefits program being modeled, and take the form of:

- Peak and off-peak trips reduced.
- Emission reductions in pounds per day or tons per day.
- Reduction of specific air pollutants, including carbon monoxide (CO), nitrogen oxide (NO<sub>x</sub>), carbon dioxide (CO<sub>2</sub>), and hydrocarbons (HC), in tons per day.

## Open Discussion

Mr. Tony Gail from Ecology and Environment, Inc., asked if COMMUTER model users could aggregate small amounts of data. Ms. Walsh explained that sources too small or numerous for SIP can be bundled. She added that Best Workplaces for Commuters could be included in the bundled measures policy.

Mr. Chris Hagelin asked for an estimate of the number of communities that have used the COMMUTER model in the conformity determination process. Mr. Herzog responded that certain jurisdictions have submitted programs similar to Best Workplaces for Commuters as part of their measurement policies since the 1990s. Ms. Walsh explained that there was a lack of awareness about the COMMUTER model when its first version was published. She expressed hope that the model will be used more now that Best Workplaces for Commuters has grown. Mr. Herzog explained that Best Workplaces for Commuters did not exist when the first guidance came out.

Mr. Gail noted that the numbers provided for Dallas in the model seemed low. Mr. Herzog explained that the model needs to be updated with more recent data because the city’s population has expanded since the model was created. The data in the model were the most recent data at the time EPA created the model.

Mr. Hagelin asked if a local coefficient is necessary. Mr. Herzog replied that a local coefficient should be used if available. Data are available for the 25 largest cities in the United States; the alternative for smaller cities is to use the national average.



Mr. Gail remarked that he had adjusted the price of gas in the COMMUTER model with no obvious impact on the results. Mr. Herzog replied that there is no feedback in the model from the price of gas to mode shares. The price of gas was a variable that was added after the completion of the model.

Mr. Herzog explained that users can model the effect of changes in gas prices with the financial incentives and parking costs screen by entering data in the “other financial costs” column. Mr. Gail tried this method during the webinar and concluded that it did produce different results.

Mr. Hagelin pointed out that if a user’s rideshare rate is very low, little can be done to change the mode share aside from artificially inflating it. Mr. Herzog agreed that this was the only way to change the mode share in this situation.

Mr. Hagelin asked if there were any sources to provide real-world comparisons of the emission reductions that the model provides. Mr. Herzog replied that there are numerous Web sites that convert the amount of CO<sub>2</sub> reduction from their activities to equivalent methane (CH<sub>4</sub>) and NO<sub>x</sub> reductions.

## Closing

The presenters closed the discussion by thanking the participants. Ms. Walsh reminded the participants that she would send an electronic evaluation for the training. She also asked that participants e-mail her with the names of additional participants who were not logged in to the Sametime portion of the presentation.